AUGUST
1970
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Live Steam

THE MONTHLY MAGAZINE FOR ALL LIVE STEAMERS AND LARGE-SCALE MODEL RAILROADERS

in this issue

National Meet Competition Construction

Live Steam magazine

AUGUST 1970 VOL. 4 NO. 8

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COVER PHOTO

Southern's Ps—4 #1396, ready to leave American Locomotive plant in June 1926 for service on the "Crescent Limited." Photo courtesy of Alco Products Service Division.

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1970 National Meet qualifies as

The Greatest Steam Show On Earth

From Hawaii to Massachusetts and from Florida to British Columbia and just about everywhere in between, Live Steamers met in Los Angeles over Memorial Day weekend for the 1970 National Meet of the Brotherhood of Live Steamers.

1,684 registered at the entry gate to make this the largest attendance on record for such an event. Sixty-seven locomotives were in operation – eight ¾" scale, twenty-two 1" scale and thirty-seven 1½" scale. Traction, stationary and static displays added to the list, and made for a well-rounded show for the Live Steam Hobby. The Chamber of Commerce held sway over the Weather Bureau and furnished perfect weather for The Meet!

A new operating schedule was tried and, from all reports, worked very well. Train orders were issued to an engineer giving him an hour of running rights during a specified period of time. As many as fifteen engines operated at one time (five in each scale) and eliminated much of the crowding and confusion that random operation often creates. Running was orderly and delays from jam-ups conspicuously absent, and the result was conducive to pleasant moods.

The catered banquet at the track site on Saturday evening was well attended. LALS President, Chester G. Peterson, conducted a short meeting after the dinner in which the First Annual Live Steam Magazine Award was presented to C. A. "Carl" Purington. William C. Fitt, Editor and Publisher of LIVE STEAM Magazine, made the presentation stating, "Each of us can look to an individual Live Steamer who has helped us along the way. Without lengthy search, though, it becomes obvious that *all* of us can point to one Live Steamer who has helped us all. There could be no other," he continued, "to receive this First Annual Live Steam Magazine Award than Carl Purinton!" Those in attendance surely agreed, for (although Carl could not make it to The Meet) the applause was certainly heard in Boxford, Massachusetts, Carl's home town!

Another "first" was also announced by Bill Fitt: America's First Live Steam Competition. Previous commitments prevented Mr. W. Graham Clayter, Jr., President of the Southern Railway System, from making the announcement. His firm is providing official drawings of their Ps—4 Pacifics for publication in LIVE STEAM Magazine and he will present a full size locomotive bell with an inscribed brass plate to the Grand Prize winner in the competition. As further outlined in the July issue of LIVE STEAM Magazine, prizes will be awarded at the 1975 National BLS Meet for operating miniature Live Steam locomotives built to the design of the Southern's Ps—4 Pacifics – with points awarded by the judges for esthetic and operational qualities as well as the builder's efforts to share his design information with newcomers to the hobby through LIVE STEAM Magazine.

After these announcements, Chet Peterson began the drawings for several door prizes awarded by various suppliers. Ho-Ho's and Ha-Ha's echoed from the neighboring mountainside as Chet (who is president of Railroad Supply Corporation) drew the ticket number that would win a Javin milling machine, donated by Railroad Supply Corporation. The winning ticket was held by John Mabee, President of Caldwell Industries – another Live Steam supplier who also sells milling machines!!! The final result, though, will draw applause from Live Steamers, and will be reported when details are completed.

The 1970 National Meet of the Brotherhood of Live Steamers is now pleasant history, as the following pages will attest. The Los Angeles Live Steamers are wonderful hosts and the long, long hours of planning and preparation were obvious in the smooth operation of the activities. A hearty and sincere *"Thank You!"* for a wonderful time, from each and every member of the largest group of Live Steamers ever assembled.

FIRST ANNUAL

Live Steam Magazine Award

In recognition of the untiring efforts of

Charles A. "Carl" Purinton

in promotion of the Live Steam Hobby

By his assistance to countless interested people and in the formation of the Brotherhood of Live Steamers in 1932, Carl (as we all know him) has helped many Live Steamers over construction hurdles, has advanced the technology of miniature steam engines and has promoted a world-wide fellowship unmatched in any other hobby.

Presented in grateful acknowledgment on this thirtieth day of May in the year of our Lord, One Thousand Nine Hundred Seventy.

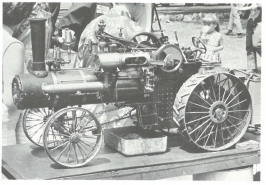
William C. Fitt, Publisher
Live Steam Magazine

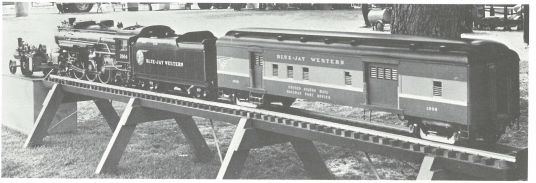
The First Annual Live Steam Magazine Award was presented to Carl Purinton as an expression of appreciation for his efforts in bringing Live Steamers together during the past thirty-eight years.

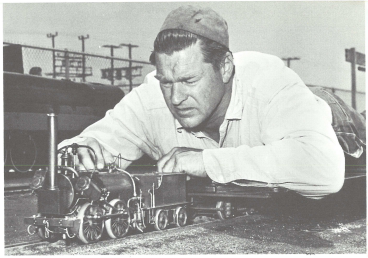
Doug Alkire's super-detailed 1" scale B & O "President Washington" (left) performed fully as good as it looks. (Doug Alkire photo)

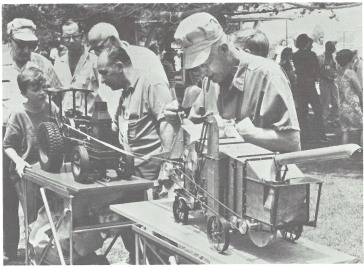
Talley Estes with his 2" Case Traction Engine (right), was part of a display by several Live Steamers which showed that the fascination of steam engines is not always confined to rails.

A 1½" Pacific and RPO car for his "Blue-Jay Western" (bottom) would classify Bob Farmen as a Craftsman's Craftsman! You should see the detail in that equipment.









Oscar Hueter (top) probably got more running time (and more steam sounds per mile) than any other person at the meet with his ¾" scale "Invicta."

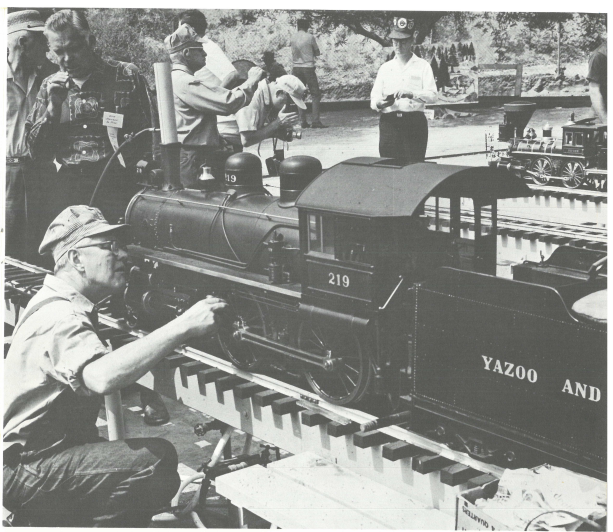
Walter Guiser adjusts his threshing rig (center) while his "hit-and-miss" Oil Pull gasoline tractor draws attention from young and old alike.

While Wade Hurst (bottom) backs Chet Ieterson's 1½" 4–8–4 off the new transfer table in the steaming bays, the operation draws mixed reactions from two spectators at the far left of the picture.

John Thatcher (across page, top) oils up his 1½" 4–4–0 while raising steam as Dick Johnson poses some questions.

Doris Fitt of LIVE STEAM Magazine (far left) watches as Dick Priest and his "Daylight" and Frank Mann with his 2–10–4 (across page, bottom) double-head a passenger train.

All photos by Ray Brethour except where otherwise credited.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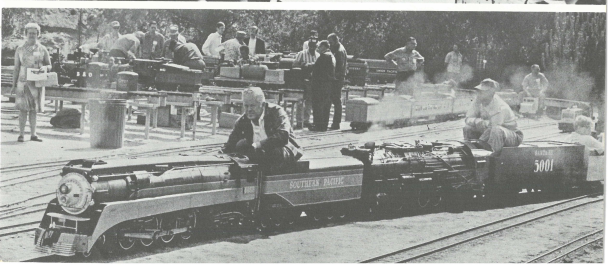
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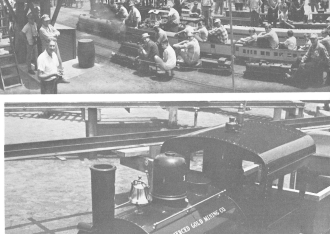
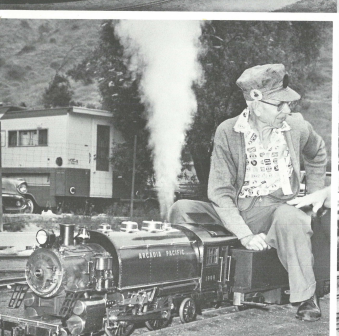


Just about anyone who has ever clicked the shutter on a camera would be intrigued by watching J. Allen Hawkins operate his big panoramic camera at The Meet. The photo across the top of these pages was made at the Saturday session; another is available of the Sunday activities.

Steam power of all sizes and vintages were represented at The Meet... and Blair Philips' 1½" "LION" (upper left) brought steam's earliest days back into focus.

Pine Valley #9, a 1" Mogul by Laurence Hiney, exemplifies the ultimate in the development of the 2–6–0 type locomotive.

The Porter 0–4–0T: turn-of-the-century workhorse of mining, industry and construction. Newt Small's 7½" gauge version for his "Merced Gold Mining Company" (above) would look right at home

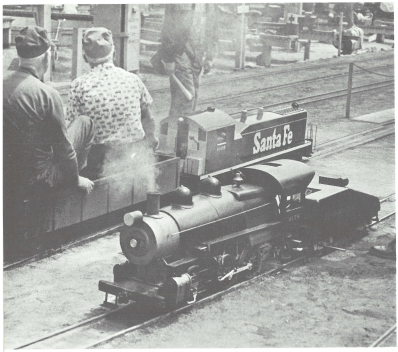


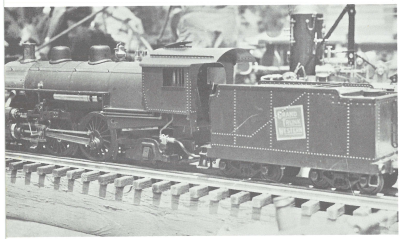
with a short string of ore cars.

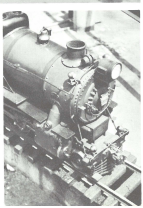
Seniority rights at The Meet were probably held by Bill Cooper who turned 85 last October. Bill, and his 1" "Arcadia Pacific" 2–4–2T, looked as chipper at The Meet as they did a couple of years ago when the late Gene Hackley took the picture above.

Six-wheel switchers had vanished from the Southern Pacific's yards before Steve Sumner was born. When Live Steamers occasionally take a back seat – as Francis Moseley did (upper right) – and give responsible youngsters such as Steve a first-hand acquaintance with his 1" 0–6–0, the love for steam can grow as surely as it did for those of us who were privileged to sit on a fence post or stand on an overpass or ride in the cab while the crew switched a cut of cars from one track to another!

Not all prototype equipment existed in reality. Richard Howe's Toonerville Trolley – complete with wires dangling from a bent trolley pole – duplicates the comic strip conveyance faithfully!







Ross Crawford's 1½" PRR 0–6–0 (top) spent much of its time during The Meet at its expected stand . . . making up trains just west of the LALS Depot. Typically, it sets on the Webb Yard lead just off the crossing while Don LaMotte passes by on the main with his Santa Fe diesel.

The canted red-and-gold Grand Trunk Western insignia on Max Convis's 3½" Atlantic was a treat to this editor's eyes, having lived near and worked for the GTW for many years.

The late Gordon Corwin built this 1½" Shay (lower left) now owned by Francis Moseley. Ken Jackson was set with his camera just as the Shay roared by with Pat Garden at the throttle.

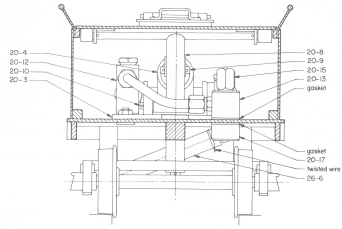
The many visitors from the eastern part of the country recalled familiar sights as they watched Joe Nelson's Pennsy K–4 (lower right) roll by on the 1" track.

But these are only some of the "things" of the meet. The experiences, the fellowship, the friendships – new and renewed, the sounds and smells of Live Steam cannot be put on pages. We'll all be waiting to live it all over again at the next National BLS Meet in 1975.

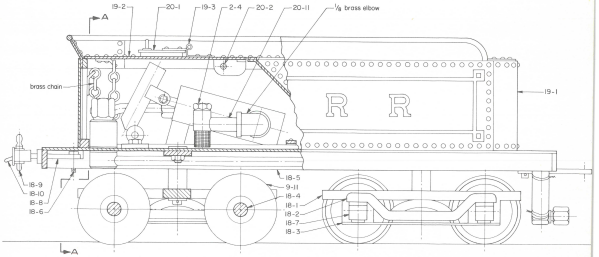
tender

building the RARITAN

by William H. Morewood



SECTION A-A



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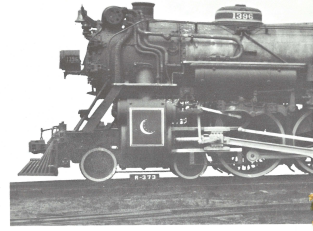


ALCO PRODUCTS SERVICE PHOTO

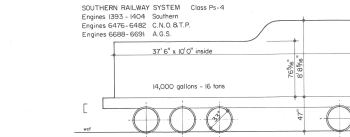
SOUTHERN RAILWAY -

PROTOTYPE SPECIFICATIONS

Cylinders	27" × 28"
Valves	14" Piston Valves, 7½" travel, 1¼" lap, ¼" lead, 3/16" exhaust clearance
Valve Gear	Baker originally, converted to Walschaerts
Boiler	Pressure – 210# p.s.i. Tubes – 216 2¼" Flues – 40 5½" Length – 18'-6"
Firebox	Length – 120-1/8" Width – 84½" Grate Area 70.5 sq. ft.
Heating Surfaces	Tubes & Flues 3599 sq. ft. Firebox 262 sq. ft. Arch Tubes 28 sq. ft. TOTAL 3689 sq. ft.
Weights in Working Order	
Engine truck	60,000#
Front Driver 60,000#	
Main Driver 60,000#	
Back Driver 60,000#	
Total on Drivers	180,000#
Trailing Truck	60,000#
Engine Total	300,000#
Tender	261,600#
Engine & Tender	561,600#
Tractive Power	45,000#
Journals	Driving, Main 12" × 13" Driving, Others 11" × 13" Engine Truck 6½" × 12" Trailing Truck 9" × 14" Tender 6" × 11"
	Standard 8" – 8-5/16" 10" – 0"
Stoker	
Feed Water Heater – Elesco	

LIVE STEAM CONVERSIONS

Prototype	¼" = 1'0" 1" = 1'0"	Scale 1½" = 1'0"	3" = 1'0"	Prototype	¼" = 1'0" 1" = 1'0"	Scale 1½" = 1'0"	3" = 1'0"
15¼"	0.953"	1.271"	1.906"	10" – 0-1/8"	7.508"	10.006"	15.016"
27"	1.688"	2.250"	3.375"	10" – 10"	8.125"	10.833"	16.250"
28"	1.750"	2.333"	3.500"	11" – 6-5/8"	8.602"	11.464"	17.203"
33"	2.063"	2.750"	4.125"	12" – 7½"	9.469"	12.625"	18.938"
43"	2.688"	3.583"	5.375"	13" – 0"	9.750"	13.000"	19.500"
47"	2.938"	3.917"	5.875"	13" – 8½"	10.250"	13.667"	20.500"
50"	3.125"	4.167"	6.250"	14" – 8"	11.000"	14.667"	22.000"
54½"	3.516"	4.687"	7.031"	14" – 9"	11.063"	14.750"	22.125"
Main Driver 60,000#							
Back Driver 60,000#	3.813"	5.083"	7.625"	14" – 11"	11.188"	14.917"	22.375"
63-3/8"	3.961"	5.281"	7.922"	16" – 2"	12.125"	16.167"	24.250"
71-3/4"	4.485"	5.979"	8.969"	23" – 0"	16.500"	22.000"	33.000"
73"	4.563"	6.083"	9.125"	30" – 4"	22.750"	30.333"	45.500"
76-5/16"	4.770"	6.357"	9.539"	36" – 1"	27.063"	36.083"	54.125"
76-5/8"	4.789"	6.383"	9.578"	37" – 4"	27.750"	37.500"	55.500"
78"	4.875"	6.500"	9.750"	79" – 0½"	59.281"	79.010"	118.653"
80"	5.000"	6.667"	10.000"	91" – 11-7/8"	68.992"	91.990"	137.984"
83-5/8"	5.227"	6.966"	10.453"				
84½"	5.266"	7.021"	10.531"	60,000#	21,480#	49,980#	161,140#
8" – 1-3/8"	6.086"	8.111"	12.172"	180,000#	64,440#	149,940#	484,200#
8" – 8"	6.500"	8.667"	13.000"	261,600#	93,653#	217,991#	703,704#
8" – 8-5/16"	6.516"	8.689"	13.039"	300,000#	107,400#	250,000#	807,000#
10" – 0"	7.500"	10.000"	15.000"	561,600#	201,053#	467,981#	1510,704#



LOOK AHEAD-LOOK SOUTH

- LIVE STEAM MAGAZINE COMPETITION

Rules:

1. This competition shall be in the construction of an operating Live Steam miniature locomotive, patterned after the Southern Railway's Pa–4 Pacific (4–6–2) type locomotives. It may be built to any scale or track gauge.

2. The entry may be or have been built at any time, but completion must be final for judging at the 1975 National Meet of the Brotherhood of Live Steamers. Exact date and location will be announced at a later date.

3. Anyone is eligible to enter the competition, except that commercially-built models may not be entered. Group efforts will be permitted, providing that each participant in the group submits an individual entry.

4. Each participant shall be responsible for his own entry. The Southern Railway System, The Brotherhood of Live Steamers, LIVE STEAM Magazine nor the Host Club for the 1975 National Brotherhood of Live Steamers Meet will not be responsible for any damage to or by any entry in this competition.

5. Judges will be appointed and announced at a later date.

6. Judges will award points for esthetic qualities on the following basis:

Basic construction and workmanship	Up to 100 points
Detail	Up to 50 points
Conformity to prototype	Up to 25 points
Finish	Up to 25 points

A handicap of 2 points will be given for each Live Steam locomotive previously constructed by an entrant. For portions of the entry not built by the entrant (as stated on the Entry Form), one-half the number of points will be credited to the entry. In the case of group projects, the remaining one-half of those points will be awarded to the person who actually did that portion of the work.

7. Basis for judging the performance of an entry will be announced at a later date.

8. The following prizes and awards will be made on the basis of the judges decisions:

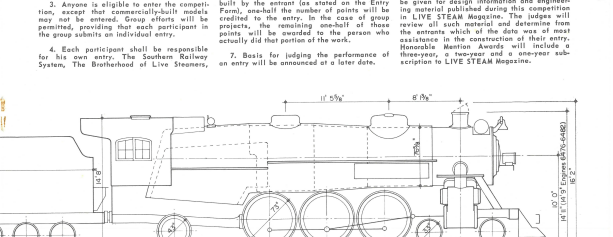
GRAND PRIZE: A bell from a full-size Southern Railway locomotive with an appropriately engraved brass plate.

1st PRIZE: (In each scale) A Blue Ribbon Award and a ten-year subscription to LIVE STEAM Magazine.

2nd PRIZE: (In each scale) A Red Ribbon Award and a five-year subscription to LIVE STEAM Magazine.

3rd PRIZE: (In each scale) A Yellow Ribbon Award and a three-year subscription to LIVE STEAM Magazine.

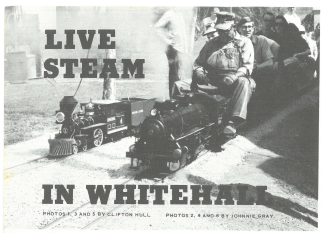
Three HONORABLE MENTION Awards will be given for design information and engineering material published during this competition in LIVE STEAM Magazine. The judges will review all such material and determine from the entrants which of the data was of most assistance in the construction of their entry. Honorable Mention Awards will include a three-year, a two-year and a one-year subscription to LIVE STEAM Magazine.

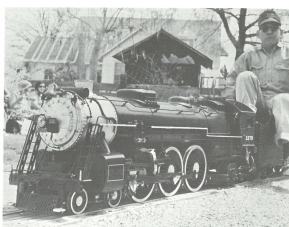


LIVE STEAM

IN WHITEHALL

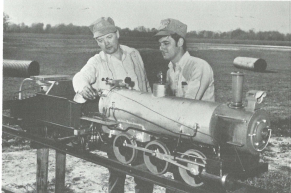
PHOTOS 1, 3 AND 5 BY CLIFTON HULL PHOTOS 2, 4 AND 6 BY JOHNNIE GRAY





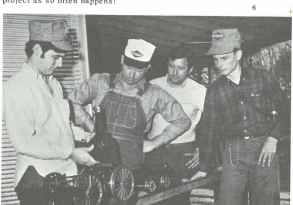
There wasn't a cloud in the sky to pollute the smoke-filled air, not a drop of rain to wash away the scent of steam and cylinder oil, no high temperatures to dillute the warming effect of a steam boiler . . . it was just the kind of a spring day that Live Steamers look forward to!

Sixty-five people from ten states met at Austin Barr's track in Whitehall, Arkansas, for the Mid-South Live Steamers' Spring Meet on April 10th through 12th. Seven 1½" engines were operating, including Leo Myers' 4–2–4T and Lynn Lowe's 0–6–0 (1), Ira Kelly's big 4–6–4 (2) and Bud Bartholemew's 4–6–0 (3). Host Austin Barr, whose 4–6–2 was in

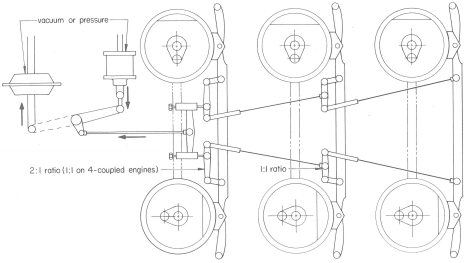


steam at all times, was elected President of the club at the business meeting Saturday night. Paul Brien (who was elected Vice President) is shown (4) explaining the hydrostatic lubricator on his SP 0–6–0 to Secretary-Treasurer Harry Wade. Paul Craft (5) and his 4–6–2 rounded out the roster of operating motive power.

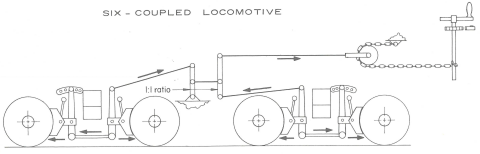
Harry Wade (l to r) and Elliott Parkman discuss construction of Harry's 4–4–0 as Larry Ziegler and Ken Miller (6) listen in. Perhaps one day soon, their HO and N gauge systems will feature Live Steam . . . or they will appear at a future meet with the beginning of their first Live Steam project as so often happens!



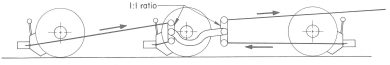
BRAKES



SIX-COUPLED LOCOMOTIVE



TENDERS AND CARS HAVING FOUR-WHEEL TRUCKS



SIX-WHEEL TRUCKS

BRAKE RIGGING DIAGRAM

WIRE & SHEET METAL GAUGES for the apprentice

by Jack D. McKenty, M.D.

The gauge system of describing diameter or thickness is a horrible, outmoded, confusing, error-prone method that should be done away with entirely. There are about 22 different gauges, some of them obsolete, American practice now favors using decimal inch sizes, either alone, or along with the gauge number; e.g. 13 gauge (.0915). This eliminates some of the errors and confusion; but there are still some old-line metal companies that not only stick with gauging their products, but don't even tell you which system they are using.

Some Common Gauges:

England: Uses S.W.G., the "British Imperial Standard Wire Gauge," almost to the exclusion of all others. All of Model Engineer Magazine's plans use S.W.G.

America: S.W.G. is different from the English S.W.G. and refers only to bare copper telephone wire.

The American Wire Gauge (A.W.G.) or Brown and Sharpe, is used for bare wires of brass, phosphor bronze, German silver, aluminum, zinc and copper (except telephone wire), resistance wires, insulated wires of aluminum and copper, sheet and strips of aluminum, brass, copper, and phosphor bronze; and the wall thickness of bare brass tubing less than 3/8" O.D.

U. S. Steel Wire Gauge (Stl. W.G.), Washburn and Moen (W&M), Ruebling Gauge, National Gauge, American Steel & Wire Gauge, are all identical and are used for spring steel wire, and uninsulated iron or steel wire which is galvanized, black annealed, tinned, or copper coated.

Music Wire Gauge, or Piano Wire Gauge, is for piano wire, oddly enough. It is the only gauge where the wire gets thicker as the numbers get bigger.

Birmingham Wire Gauge (B.W.G.), or Birmingham Gauge, Stubbs Gauge, or Stubbs Iron Wire Gauge, is occasionally used in England for brass sheets, In America, it measures the wall thickness of aluminum tubing, steel tubing and brass tubing 3/8" O.D. or larger, and spring steel strip.

Others include United States Standard Gauge (U.S.S.G.) for plates which is based on weight per square foot rather than thickness, and the American Zinc Gauge, and some obscure ones.

Decimal inch sizes are better.

Fortunately we deal mostly with only two gauges, the English S.W.G. and the American Stl. W.G. And even more fortunately, the two are almost identical over the range of model engineering sizes, (6 to 24 gauge.)

The table gives S.W.G. and Stl. W.G. sizes in decimal inch, plus some *approximate* fractional sizes. Complete tables are available in the "Machinery Handbook."

Wire and Sheet Metal Gauges

Gauge No.	S.W.G.	Stl. W.G.	Fractional/Decimal
6	.192	.1920	3/16 (.187)
7	.176	.1770	
8	.160	.1620	5/32 (.156)
9	.144	.1483	
10	.128	.1350	1/8 (.125)
11	.116	.1205	
12	.104	.1055	
13	.092	.0915	3/32 (.093)
14	.080	.0800	
15	.072	.0720	
16	.064	.0625	1/16 (.062)
17	.056	.0540	
18	.048	.0475	3/64 (.046)
19	.040	.0410	
20	.036	.0348	
21	.032	.0318	1/32 (.031)
22	.028	.0286	
23	.024	.0258	
24	.022	.0230	
25	.020	.0204	
26	.018	.0181	1/64 (.015)

Spring Meet at North Palm Beach

Photos and report by Thomas A. Hill

1

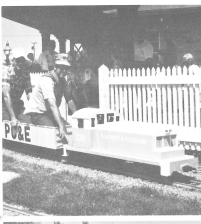
With Ed Pruitt as host, the Flat River & Southern tracks were the scene of a successful Live Steam meet on April 18th and 19th. Live Steamers, 60 strong, came from all parts of Florida and from as far away as Tennessee.

Diesel power equalled steam power in quantity and Bill Koster's little four-wheel switcher (1) turned out to be the workhorse of the meet.

Emery Horvath's 0–4–0 (2) Live Steamer, though, didn't take a back seat for any engine there. It proved to be a hard little worker, taking man-sized loads over the 4% grades alone!

John Coughran's SW–1 diesel switcher (3) gave representation to the larger units in the internal combustion power group, and with Lynn Lowe's 0–6–0 completed an operation of nearly all switching locomotives at the meet. Even Ed Pruitt's Bowlus Diesel added to that faction, but his Winton Mogul made a good showing for road engines.

A turn-of-the-century transfer caboose by Foster Bond (4) added a note of authenticity to the trains and stationary steam operations were provided by Bob Seelander, Stan Parker and Bob Westein. Stan also had an "O" gauge Live Steam locomotive operating.

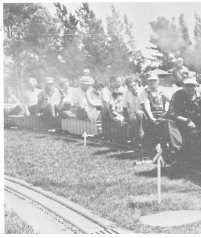


3

On display were several 3½" engines: a Raritan and a Southern Ps–4 Pacific by Ralph Richards, and a "Tich" by William Whitman. A 2" scale, 9" gauge 4–4–0 was shown by Fred Clark, Jr. 1½" equipment included four engines under construction: a GP–9 by Bill Koster, a Burlington 4–6–2 by Tom Hill and a couple of 4–4–0's by Joe Katz and John Coughran.

A Saturday night banquet featured Winton Brown of Winton Engineering Company as speaker, with a presentation of interesting slides by Winton and Bob Seelander.

With the sounds of Lynn Lowe's 0–6–0 and Emery Horvath's 0–4–0 in double-headed concert (5) and the concentrated smell of coal smoke such as Lynn Lowe demonstrated (6) to Fred Clark, Jr., there will be another group of Live Steamers ready anytime Ed Pruitt gives the call!



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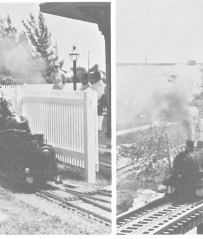
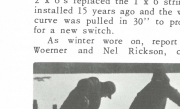


6

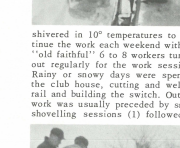
"OPERATION DEEPFREEZE"

Just after the Fall Meet last October, the west end curve of the PVLS track at Southwick was dismantled and work begun to rebuild it. New 2 x 6's replaced the 1 x 6 stringers installed 15 years ago and the whole curve was pulled in 30" to provide for a new switch.

As winter wore on, report Len Woerner and Nel Rickson, crews



shivered in 10° temperatures to continue the work each weekend with the "old faithful" 6 to 8 workers turning out regularly for the work sessions. Rainy or snowy days were spent in the club house, cutting and welding rail and building the switch. Outside work was usually preceded by snow-shovelling sessions (1) followed by



another crew who bolted the stringers to the uprights (2) with 3/8" bolts.

The whole stretch is now back in operation with 3/4" and 1" track for running our engines. Let's hope that there is a special sunny niche in the Hereafter for those stalwarts who brave the winter cold to get tracks in shape for the rest of us to use when the weather turns fair!

HI-HO! COME TO THE FAIR!

OKLAHOMA Science and Arts Foundation will hold its Second Annual Model Hobby Fair in Oklahoma City on October 17th and 18th. Space for display is offered inside the Women's Building as well as several adjoining acres of outdoor space. Booths are available to manufacturers for display of their products.

Prizes are offered in several categories of displays, as well as door prizes, films and lectures.

For further information, contact Dale Johnson, Oklahoma Science and Arts Foundation, 3000 Pershing Blvd., Fairgrounds, Oklahoma City, Oklahoma 73107.

LIVE STEAM'S LEGAL IN NEBRASKA!

As of Christmas Day, 1969, Live Steam models with non-commercial, non-code boilers not over 10 inches inside diameter or 1½ square feet of grate area became legal in Nebraska.

Thus ended over two years of frustration, of hard work and inactivity for the Omaha Area Live Steamers. Contact with Senator Henry F. Pedersen, Jr., resulted in eventual passage of a bill in Nebraska's Unicameral, and a surge of new enthusiasm in the club.

For more information about Live Steam activity in the Omaha area, contact Robert Recic, Secretary of the Omaha Area Live Steamers, at 5021 S. 93rd Circle, Omaha, Nebraska 68127.

FINGER LAKES LIVE STEAMERS PROGRESSING

Eleven acres of land have been leased with an option to buy in the village of Marengo, New York. This is just north of the New York Thruway, about halfway between Rochester and Syracuse – within 50 miles of most of the club's members.

Initial construction will be a 3½"-1" trestle facility and was speeded along by much work during the past winter.

On March 14th, John S. Eyster was elected as President, Harold C. Crouch as Vice President, Richard C. Alley as Secretary and Stanley B. Swackhamer as Treasurer. Area Directors chosen were James V. Wright, Western; Nelson W. Gray, Eastern; William H. Ellwood, Southern.

For further information about this club, contact the secretary, Richard C. Alley at 279 Thomas Ave., Rochester, N. Y. 14617, phone 716 – 342-3316.

TEXAS State Fair in Dallas will be held from October 10th to 25th. Two Divisions will interest our readers: Creative Hobbies include Models which must have been made in the past two years and not exceed three feet in length – which would, unfortunately, restrict some Live Steam entries. Scale Model Division includes kit, conversion and scratch-built models of an actual full-size prototype . . . but are also restricted to three feet in length.

Entries must be received between September 15th and 20th. Cash prizes are awarded in several categories.

For further information, contact Mrs. Elizabeth Peabody, Director of Women's Activities, Women's Department, State Fair of Texas, Post Office Box 26010, Dallas, Texas 75226.

In the pursuit of happiness there must, at one time or another, come a moment of sadness. On Sunday, May 10th, LESLIE L. FOWLER, JR., a charter member of the Pioneer Valley Live Steamers, passed away while getting the grounds in shape at Southwick for the PVLS Spring Meet.

As will long be remembered for his part in the success of the club. Through him it was able to lease 15 acres from his father, and later to purchase 11 acres which now makes up the PVLS site.

Through the years, Les had been a devoted Live Steamer and will be missed by all who knew him.

To his good wife, Aliette, goes our deepest sympathy.

BRENTON W. BARNFATHER

THOMAS C. PHILLIPS, SR., of Royston, Georgia, passed away on June 16th, 1970, at the age of 59. Tom had been ill since last September.

A native of Royston, Tom had spent most of his life in Atlanta. He had been with the Federal Aviation Agency for some 33 years although he never had any use for aeroplanes. Trains were his love and he knew all the railroad officers in the Southeast.

He was a member of the board of the Atlanta Chapter of the National Railway Historical Society and one of the founding members of the Rebel Live Steam Association.

Tom Phillips will be greatly missed by all the Live Steamers in the Southeast.

SYDNEY H. WATTS

Scheduled Meets

August

1 SOUTHERN MINNESOTA LIVE STEAMERS
2 STEAMERS
Al O'Neil's Track
3½" – 4¼" – 12"
Lake City, Minnesota

2 PALATINE, LAKE ZURICH & WAUCONDA RAILROAD
3rd Anniversary Meet
4¼" gauge
Frank Saville
512 Miller
Barrington, Ill. 60010
Phone 312 – 381-3070

8 PUGET SOUND LIVE STEAMERS
9 Steamfest Meet & Salmon Barbeque
McConnel Island
Everett A. Ames, Secretary
Route 4, Box 530A
Sedro Woolley, Wash. 98284
Phone 206 – 856-3663

15 TRI-STATE LOCOMOTIVE CLUB
7½" gauge
Jack Spalding's track
Monroe, Michigan
J. Bullock, Secretary
26 Rosewood Drive
Davison, Michigan 48423

22 NEW ENGLAND STEAM LAUNCH AND MODEL MEET
Marine, Stationary, Traction, Locomotive
Downtown USA – Bellows Falls, Vt.
Richard M. Mitchell
9 Steamer "River Queen"
Brattleboro Road
Hinsdale, New Hampshire 03451

September

5 PENNSYLVANIA LIVE STEAMERS
6 2½" – 3½" – 4½"
7 William H. Scott, Secretary
R. D. 1, Box 400
Sellersville, Pa. 18960

5 RED RIVER VALLEY RAILWAY
6 2½" – 3½" – 5" gauges
7 Paul Winslow, Secretary
35 Watson Crescent
Winnipeg 20, Manitoba
Phone 204 – 889-1710

12 IOWA MODEL STEAM
13 ENGINEERS
3½" – 4¼" – 7½"
Pershing G. Scott
R.F.D. 1
Marion, Iowa 52302

12 GOLDEN GATE LIVE STEAMERS
13 2½" – 3½" – 4½" – 7½"
Joe Bryan, Secretary
1225 Scott Street
El Cerrito, California 94530

13 NORTH EAST OHIO LIVE STEAMERS
7½" gauge
First Anniversary Meet
Clint Ensworth's track
Medina, Ohio
William O'Neill, Secretary
251 Melbourne Avenue
Akron, Ohio 44313

18 NEW JERSEY LIVE STEAMERS
19 Advance reservation required
20 3½" – 4¼" – 7½"
Ralph W. Green, Secretary
845 Kilsyth Road
Elizabeth, N. J. 07208
Phone 201 – 353-4424

19 TRI-STATE LOCOMOTIVE CLUB
7½" gauge
Harry Herder's track
Kalamazoo, Michigan
J. Bullock, Secretary
26 Rosewood Drive
Davison, Michigan 48423

26 ONTARIO SUNPARLOR LINES
27 3½" – 4¼"
Jack Hart, Secretary
1381 Shepherd Street
Windsor, Ontario, Canada

October

3 SOUTHERN MINNESOTA LIVE STEAMERS
4 STEAMERS
Al O'Neil's Track
3½" – 4¼" – 12"
Lake City, Minnesota

9 PIONEER VALLEY LIVE
10 STEAMERS
11 3½" – 4¼" – 7½"
Brenton W. Bainthaler, Secretary
35 Stanwood Drive
Sandy Hook, Conn. 06482

17 2nd ANNUAL LIVE STEAM EXCURSION
C & L C Railroad
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See ad for details

Regular Run Days

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El Cerrito, California 94530

JAMUL VALLEY RAILROAD
3rd Sunday each month
7½" gauge
Harry P. Haas
Route 1, Box 47 A
Jamul, California 92035

LOS ANGELES LIVE STEAMERS
1st Sunday each month
3½" – 4¼" – 7½"
Ernest E. Best, Secretary
12733 Killdeer Street
North Hollywood, Calif. 91606

MONTREAL LIVE STEAMERS
1st Sunday each month
3½" – 4¼" – 7½" gauges
S. H. Galloway, Secretary
53 Brentwood Road
Beaconsfield, Quebec, Canada

NEW JERSEY LIVE STEAMERS
Every Sunday May through October
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845 Kilsyth Road
Elizabeth, N. J. 07208
Phone 201 – 353-4424

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H. S. Harvey
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Portland, Oregon 97202

PENNSYLVANIA LIVE STEAMERS
Aug. 9- Sept. 30; Oct. 6 & 18
William H. Scott, Secretary
R. D. 1, Box 400
Sellersville, Pa. 18960

PIONEER VALLEY LIVE STEAMERS
2nd Sunday each month
3½" – 4¼" – 7½"
Brenton W. Bainthaler, Secretary
35 Stanwood Drive
Sandy Hook, Conn. 06482

RAILROADERS CLUB OF SAN ANTONIO
3rd Sunday each month,
weather permitting
7½" gauge
Cec Beck
2626 McCullough Avenue
San Antonio, Texas 78212

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2½" – 3½" – 5" gauges
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Winnipeg 20, Manitoba, Canada
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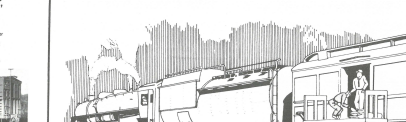

mail stop

AN INVITATION

I suppose I must be one of your most "outlandish" (if not the most distant readers, stationed as I am on this atoll which probably conjurs up painful wartime memories for some of those who read this. Life is very peaceful here now and I (who you have probably guessed by now am not an American, but a wandering Scot!) am patiently waiting for the mail to come over the horizon with a lathe and some assorted metal to allow me to proceed with my locomotive building.

Having quite recently become acquainted with the model steam railroad scene in America through the medium of LIVE STEAM Magazine, I would very much like to strengthen the tie by corresponding with someone "over there."

I am building here a 4—6—4 of an old L.B.S.C. design in 2½" gauge and have a partly-built 4—6—0 Class 5 L.M.S. in 3½" gauge back in Scotland. The latter must be the most travelled of its class in the world, whether full-size or model. It started life in Nigeria, then moved to Malaya and on to Hong Kong, Guadalcanal in the Solomons, Basutoland and, finally, Scotland! Can anyone better this record?

I must warn anyone who corresponds with me that my standards will appear very low in comparison with the excellent workmanship so obvious in the models photographed in LIVE STEAM Magazine. However, as a lone hand whose experience has all been gained by his mistakes, a link by correspondence will add greatly to my pleasure in this hobby and, I sincerely hope, to anyone kind enough to accept my invitation.

ROBERT MARSHALL
RAIRIKI, TARAWA
GILBERT & ELLICE ISLANDS
CENTRAL PACIFIC

DRILLS AND DRILLING

Using the lathe for a drill press (drill bit in headstock chuck, work against drill pad in tailstock) is inaccurate and unsafe, as Dr. Jack D. McKenty says in *Drills and Drilling for the apprentice, Part 1.* (LS 1/70). However, axial drilling on the lathe (work in the headstock chuck, drill bit in the tailstock chuck) is most always more safe, and much more accurate than trying to do the same job on the drill press. I know that Jack knows this, but the article makes it seem "not so."

The grinding of drill bits is the most important item in drilling. One needs sharp drill bits for drilling aluminum, steel and *the first hole* in brass or bronze; but dull (negative rake) drill bits for chasing holes in the "yellow metals." (After I "grind back" a drill bit, I keep it in a separate stand. I now have nearly complete sets of negative rake drill bits.) Drill grinding is the single most important item in keeping drill press work safe, or making it unsafe.

Selection of lubricants is another important item. Proper lubricants must be used to obtain accurate size and finish of holes, as well as keeping drill bit life to its maximum.

"Keyless Drill Chucks" are very well worth thinking about. They have precision ground jaws and are, therefore, much more accurate and they do not have a key which makes them much more safe. A good keyless chuck, kept in good order, holds a drill much better than the common "Jacobs Chuck." They are not seen often in the home workshop because they are also more expensive than key drill chucks.

JIM VAIL
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